

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for generating an image, comprising:
receiving light at a plurality of sensors, the light associated with a plurality of images;
repeating the following for each sensor of the plurality of sensors:
determining a previous matrix comprising image information associated with a previous image of the plurality of images;
generating current image data corresponding to a current image of the plurality of images; and
determining a current matrix using the previous matrix and the current image data, the current matrix comprising image information associated with the current image; and
computing a fusion matrix by fusing ~~according to~~ the current matrix of each sensor of the plurality of sensors, the fusion matrix operable to initiate generation of a fused image.
2. (Original) The method of Claim 1, wherein determining a current matrix further comprises calculating a change matrix indicating a change associated with the previous matrix and the current image data.
3. (Original) The method of Claim 1, wherein determining the current matrix further comprises determining a difference between the current image data and the previous matrix.
4. (Original) The method of Claim 1, wherein computing the fusion matrix further comprises computing the fusion matrix only if a change matrix indicates a change associated with a previous matrix and a current matrix.
5. (Original) The method of Claim 1, wherein computing the fusion matrix further comprises computing the fusion matrix at a fusion processor, the fusion processor comprising a member of the group consisting of a neural net, a plurality of logic operators, a field programmable gate array (FPGA), one or more solid state circuits, and a hardware architecture.

6. (Original) The method of Claim 1, further comprising generating a display matrix according to the fusion matrix, the display matrix operable to generate the fused image.

7. (Original) The method of Claim 1, further comprising displaying the fused image generated in accordance with the fusion matrix.

8. (Original) The method of Claim 1, further comprising processing each current matrix to enhance one or more components of each current matrix.

9. (Currently Amended) The method of Claim 1, wherein each sensor of the plurality of sensors is associated with a different ~~particular~~ wavelength range.

10. (Currently Amended) A system for generating an image, comprising:
a plurality of sensors operable to receive a light, the light associated with a plurality of images; and

a processor coupled to the plurality of sensors and operable to:

repeat the following for each sensor of the plurality of sensors:

determine a previous matrix comprising image information associated with a previous image of the plurality of images;

generate current image data corresponding to a current image of the plurality of images; and

determine a current matrix using the previous matrix and the current image data, the current matrix comprising image information associated with the current image; and

compute a fusion matrix by fusing ~~according to~~ the current matrix of each sensor of the plurality of sensors, the fusion matrix operable to initiate generation of a fused image.

11. (Original) The system of Claim 10, the processor further operable to calculate a change matrix indicating a change associated with the previous matrix and the current image data.

12. (Original) The system of Claim 10, the processor further operable to determine a difference between the current image data and the previous matrix.

13. (Original) The system of Claim 10, the processor further operable to compute the fusion matrix only if a change matrix indicates a change associated with a previous matrix and a current matrix.

14. (Original) The system of Claim 10, the processor further operable to compute the fusion matrix at a fusion processor, the fusion processor comprising a member of the group consisting of a neural net, a plurality of logic operators, a field programmable gate array (FPGA), one or more solid state circuits, and a hardware architecture.

15. (Original) The system of Claim 10, the processor further operable to generate a display matrix according to the fusion matrix, the display matrix operable to generate the fused image.

16. (Original) The system of Claim 10, further comprising a display coupled to the processor and operable to display the fused image generated in accordance with the fusion matrix.

17. (Original) The system of Claim 10, the processor further operable to process each current matrix to enhance one or more components of each current matrix.

18. (Currently Amended) The system of Claim 10, wherein each sensor of the plurality of sensors is associated with a different ~~particular~~ wavelength range.

19. (Currently Amended) A system for generating an image, comprising:
means for receiving light at a plurality of sensors, the light associated with a plurality of images;
means for repeating the following for each sensor of the plurality of sensors:
determining a previous matrix comprising image information associated with a previous image of the plurality of images;
generating current image data corresponding to a current image of the plurality of images; and
determining a current matrix using the previous matrix and the current image data, the current matrix comprising image information associated with the current image; and
means for computing a fusion matrix by fusing according to the current matrix of each sensor of the plurality of sensors, the fusion matrix operable to initiate generation of a fused image.

20. (Currently Amended) A method for generating an image, comprising:

- receiving a light at a plurality of sensors, the light associated with a plurality of images, each sensor of the plurality of sensors being associated with a particular wavelength range;
- repeating the following for each sensor of the plurality of sensors:
 - determining a previous matrix comprising image information associated with a previous image of the plurality of images;
 - generating current image data corresponding to a current image of the plurality of images;
 - determining a current matrix using the previous matrix and the current image data, the current matrix comprising image information associated with the current image, the current matrix determined by:
 - determining a difference between the current image data and the previous matrix; and
 - calculating a change matrix using the difference; and
 - processing each current matrix to enhance once or more components of each current matrix;
 - computing a fusion matrix by fusing according to ~~according to~~ the current matrix of each sensor of the plurality of sensors by:
 - computing the fusion matrix only if any change matrix indicates a change associated with a previous matrix and a current matrix; and
 - computing the fusion matrix at a fusion processor, the fusion processor comprising a member of the group consisting of a neural net, a plurality of logic operators, a field programmable gate array (FPGA), solid state circuits, and a hardware architecture, the fusion matrix operable to initiate generation of a fused image;
 - generating a display matrix according to the fusion matrix, the display matrix operable to generate the fused image; and
 - displaying the fused image generated in accordance with the fusion matrix.